

Mr. Elwin Eash  
Indiana Custom Truck, Inc.  
P.O. Box 210  
LaGrange, Indiana 46761

Dear Mr. Eash:

Re: Exempt Construction and Operation Status,  
087-15628-00053

The application from Indiana Custom Truck, Inc. received on May 9, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following truck sleepers manufacturing plant to be located at 2840 North State Road 9, LaGrange, Indiana, is classified as exempt from air pollution permit requirements:

- (a) Six (6) natural gas-fired tube heaters, identified as H1 through H6, each with a maximum heat input capacity of 0.1 million British thermal units per hour (mmBtu/hr);
- (b) Two (2) natural gas-fired air make up units, identified as AM1 and AM2, each with a maximum heat input capacity of 0.5 mmBtu/hr;
- (c) Four (4) Metal Inert Gas (MIG) welding stations, identified as MIG-1 through MIG-4 with a maximum consumption of 0.0315 weld wire per hour per station;
- (d) One (1) Tungsten Inert Gas (TIG) welding station with a maximum consumption of 0.045 pound per hour;
- (e) One (1) Plasma Cutter unit capable of cutting at a maximum rate of 6 inches per minute at a maximum thickness of 1 inch;
- (f) Metal and Woodworking operations, which includes two (2) Bandsaws, one (1) Edge Sander, two (2) Chop Saws, one (1) Cut Off Saw, one (1) Bench Grinder, one (1) Drill Press, one (1) Iron Worker Unit, eight (8) Jig Saws, and one (1) Table Saw. The PM emissions from the one (1) Table Saw is controlled by dust collector, DC-1;
- (g) One (1) Paint Booth, identified as B-1 capable of using a maximum of 0.0627 gallon/hour, equipped with two (2) High Volume Low Pressure (HVLP) guns, venting to stacks SV-1 and SV-2. The PM overspray emission is controlled by dry filters;
- (h) One (1) Glue Room, identified as SR-1 capable of using a maximum of 2.09 gallons of glue per unit, equipped with three (3) air atomized spray system, venting to stacks SV-3 and SV-4. The PM overspray emission is controlled by dry filters;
- (i) One (1) Paint Mix Room, identified as MR-1, venting to stack SV-5; and
- (j) Two (2) Gun Washer Tanks, identified as GUNWASH-1 and GUNWASH-2, each with a capacity of 2 gallons.

The following conditions shall be applicable:

(a) Opacity Limitations [326 IAC 5-1-2]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(b) Particulate Matter Emission Limitations [326 IAC 6-3]

- (1) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the new surface coating operation (B-1 and SR-1) shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (2) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the welding operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour} \\ P = \text{process weight rate in tons per hour}$$

(c) Particulate Matter (PM) Overspray Emissions

The dry filters for PM control shall be in place at all times when any of the proposed surface coating booths (B-1 and SR-1) is in operation in order to comply with the limit in Condition (b).

(d) Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to the wood part of the truck sleepers shall utilize one of the following application methods:

Airless Spray Application  
Air Assisted Airless Spray Application  
Electrostatic Spray Application  
Electrostatic Bell or Disc Application  
Heated Airless Spray Application  
Roller Coating  
Brush or Wipe Application  
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between

one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(e) Volatile Organic Compounds (VOC)

Any change or modification which may increase the volatile organic compounds emissions to ten (10) tons per year or more from the equipment covered in this exemption shall be approved by the Office of Air Quality (OAQ) before such change may occur.

(f) Hazardous Air Pollutants (HAPs)

Any change or modification which may increase the single HAP emissions to ten (10) tons per year or more or combined HAPs to twenty-five (25) tons per year or more shall be approved by the Office of Air Quality (OAQ) before such change may occur.

(g) Cold Cleaner Operation

Pursuant to 326 IAC 8-3-2;

The owner or operator of the proposed two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2) shall:

- (1) equip the cleaner with a cover;
- (2) equip the cleaner with a facility for draining cleaned parts;
- (3) close the degreaser cover whenever parts are not being handled in the cleaner;
- (4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (5) provide a permanent, conspicuous label summarizing the operating requirements;
- (6) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

(h) Cold Cleaner Degreaser Without Remote Solvent Reservoir

Pursuant to 326 IAC 8-3-5;

- (1) the owner or operator of the two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2) degreasers shall ensure that the following control equipment requirements are met:
  - (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
    - (B) the solvent is agitated; or
    - (C) the solvent is heated.
  - (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)),

- or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (2) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (a) Close the cover whenever articles are not being handled in the degreaser.
  - (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

APD

cc: File - LaGrange County  
LaGrange County Health Department  
Air Compliance - Doyle Houser  
Northern Regional Office  
Permit Tracking  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for an Exemption**

#### **Source Background and Description**

Source Name: Indiana Custom Truck, Inc.  
Source Location: 2840 North State Road 9, LaGrange, Indiana 46761  
County: LaGrange  
SIC Code: 3713  
Exemption No.: 087-15628-00053  
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Indiana Custom Truck, Inc. relating to the construction and operation of the following emission units used in the manufacture of truck sleepers:

- (a) Six (6) natural gas-fired tube heaters, identified as H1 through H6, each with a maximum heat input capacity of 0.1 million British thermal units per hour (mmBtu/hr);
- (b) Two (2) natural gas-fired air make up units, identified as AM1 and AM2, each with a maximum heat input capacity of 0.5 mmBtu/hr;
- (c) Four (4) Metal Inert Gas (MIG) welding stations, identified as MIG-1 through MIG-4 with a maximum consumption of 0.0315 weld wire per hour per station;
- (d) One (1) Tungsten Inert Gas (TIG) welding station with a maximum consumption of 0.045 pound per hour;
- (e) One (1) Plasma Cutter unit capable of cutting at a maximum rate of 6 inches per minute at a maximum thickness of 1 inch;
- (f) Metal and Woodworking operations, which includes two (2) Bandsaws, one (1) Edge Sander, two (2) Chop Saws, one (1) Cut Off Saw, one (1) Bench Grinder, one (1) Drill Press, one (1) Iron Worker Unit, eight (8) Jig Saws, and one (1) Table Saw. The PM emissions from the one (1) Table Saw is controlled by dust collector, DC-1;
- (g) One (1) Paint Booth, identified as B-1 capable of using a maximum of 0.0627 gallon/hour, equipped with two (2) High Volume Low Pressure (HVLN) guns, venting to stacks SV-1 and SV-2. The PM overspray emission is controlled by dry filters;
- (h) One (1) Glue Room, identified as SR-1 capable of using a maximum of 2.09 gallons of glue per unit, equipped with three (3) air atomized spray system, venting to stacks SV-3 and SV-4. The PM overspray emission is controlled by dry filters;
- (i) One (1) Paint Mix Room, identified as MR-1, venting to stack SV-5; and
- (j) Two (2) Gun Washer Tanks, identified as GUNWASH-1 and GUNWASH-2, each with a

capacity of 2 gallons.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
SV-1 and SV-2	Paint Booth	25	2	5250 each	ambient
SV-3 and SV-4	Glue Room	20	1.166	800 each	ambient
SV-5	Mix Room	25	1.5	2200	ambient
H-1 through H-6	Tube Heater	22	0.5 each	100 est.	ambient
AM-1 and AM-2	No Stacks				

A complete application for the purposes of this review was received on May 9, 2002.

### Emission Calculations

- (a) Various Natural Gas-fired heaters: See Page 1 of 3 TSD Appendix A of this document for detailed emissions calculations.
- (b) Surface Coating Operations: See Pages 2 and 3 of 3 TSD Appendix A of this document for detailed emission calculations.
- (c) Welding Operation: Emission factors are from SARA 313 Reporting Guide

(1) MIG Welding:

$$\begin{aligned} \text{PM/PM}_{10} \text{ Emissions} &= 0.0315 \text{ lbs/hr/station} * 4 \text{ stations} * 0.0055 \text{ lb PM/lb electrode} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.003 \text{ tons/yr} \end{aligned}$$

(2) TIG Welding:

$$\begin{aligned} \text{PM/PM}_{10} \text{ Emissions} &= 0.045 \text{ lb/hr/station} * 1 \text{ station} * 0.0055 \text{ lb PM/lb electrode} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.0011 \text{ ton/yr} \end{aligned}$$

(3) Plasma Cutting:

$$\begin{aligned} \text{Throughput} &= \frac{6 \text{ in/min} * (1 \text{ in}) * 60 \text{ min/hr} * 8760 \text{ hrs/yr} * 1/1000}{1 \text{ in}} \\ &= 3153.6 \text{ k in/yr} \\ \text{PM/PM}_{10} \text{ Emissions} &= 3153.6 \text{ k in/yr} * 0.1622 \text{ lb/k in} * \text{ton}/2000 \text{ lb} \\ &= 0.26 \text{ ton/yr} \end{aligned}$$

- (d) Metal/Woodworking:  
Using the baghouse information:  
Efficiency = 98%  
Dust collected = 1 ton/yr  
Ein = Total uncontrolled PM/PM<sub>10</sub> Emissions

$$\begin{aligned} \text{Dust collected, 1 ton/yr} &= 0.98 \text{ Ein} \\ \text{Ein} &= \frac{1 \text{ ton/yr}}{0.98} \\ \text{Ein} &= 1.04 \text{ ton of PM/PM}_{10} \text{/yr uncontrolled} \\ &= 1.04 \text{ ton/yr} (1 - 0.98) \\ &= 0.021 \end{aligned}$$

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	2.6
PM-10	2.64
SO <sub>2</sub>	0.0
VOC	8.54
CO	0.59
NO <sub>x</sub>	0.70

HAP's	Potential To Emit (tons/year)
Hexane	1.76
Toluene	0.57
Glycol Ether	0.62
Methyl Ethyl Ketone (MEK)	1.89
Xylene	0.13
Ethylbenzene	0.03
TOTAL	5.0

## Justification For the Approval Level

- (a) The source is exempted from permitting, pursuant to 326 IAC 2-5.1-1, as the potential to emit (as defined in 326 IAC 2-7-1(29)) of volatile organic compounds (VOC) and PM and PM10 are less than 10 tons per year and 5 tons per year respectively.

## Limited Potential to Emit

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Surface Coating	0.13	0.13	0.0	8.5	0.0	0.0	1.89 single HAP 5.0 combined HAPs
Natural Gas Combustion	0.01	0.05	0.0	0.04	0.59	0.70	0.0
Welding	0.2641	0.2641	0.0	0.0	0.0	0.0	0.0
Metal/Woodworking	0.021	0.021	0.0	0.0	0.0	0.0	0.0
Total Emissions	0.4251	0.4651	0.00	8.54	0.59	0.70	1.89 single HAP 5.0 combined HAPs

- (a) This new source is **not** a major stationary source because no attainment pollutant is

emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### County Attainment Status

The source is located in LaGrange County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaGrange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) LaGrange County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Part 70 Permit Determination

- (a) 326 IAC 2-7 (Part 70 Permit Program)  
This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:
  - (1) each criteria pollutant is less than 100 tons per year,
  - (2) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
  - (3) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

### Federal Rule Applicability

- (a) New Source Performance Standards (NSPS):
  - (1) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAP):
  - (1) 40 CFR Part 63.460, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. This rule applies to each individual batch vapor in-line vapor, in-line cold and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloromethane, carbon tetrachloride, or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than five (5) percent by weight, as a cleaning or drying agent.  
  
The proposed two (2) Gun Washer Tanks, identified as GUNWASH-1 and GUNWASH-2 are not subject to this NESHAP, as they do not use any or combination of the halogenated solvents listed in the NESHAP.
  - (2) There are no other National Emission Standards for Hazardous Air Pollutants



(NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

#### **State Rule Applicability - Entire Source**

- (a) 326 IAC 2-6 (Emission Reporting)  
This source is not subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit less than one hundred (100) tons per year of volatile organic compounds, and the source is not located in one the counties specified in the rule that has volatile organic compounds of 10 tons per year.
- (b) 326 IAC 5-1 (Visible Emissions Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **State Rule Applicability - Individual Facilities**

- (a) 326 IAC 8-2-12 (Surface Coating Emission Limitations: Wood Furniture and Cabinet Coating)  
This rule applies to surface coated wood furnishings which include cabinets (kitchen bath and vanity) tables, beds, chairs, sofas (non-upholstered) art objects, and any other coated furnishings made of solid wood, wood composition or simulated wood material.  
  
An owner or operator of a wood furniture or cabinet coating operation subject to this section shall apply all coating material , with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application system; electrostatic spray application system, electrostatic bell or disc application system, heated airless spray application system, roller coat, brush or wipe application or dip-and-drain application system.  
  
The proposed surface coating operation (B-1 and SR-1) could potentially have an actual VOC emissions of 15 pounds per day, based on the daily PTE and therefore, is subject to 326 IAC 8-2-12, when the source coats the wood part of the truck sleepers. The source meets the requirements of this rule since it uses High Volume Low Pressure (HVLP) Spray Application, which is an accepted alternative method of application for Air Assisted Airless Spray Application.
- (b) 326 IAC 8-1-6 (General reduction Requirements)  
This rule applies to new facilities existing as of January 1, 1980, which have potential emissions of 25 tons of VOC per year or more, located anywhere in the state, which are not otherwise regulated by other provisions of article 326 IAC 8.  
  
The proposed surface coating operation, which consists of Paint Booth, B-1 and Glue Room, SR-1 are not subject to 326 IAC 8-1-6, as the potential VOC emission is less than 25 tons per year.
- (c) 326 IAC 6-3-2 (Process Operations)
  - (1) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the proposed surface coating operation (B-1 and SR-1) shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the proposed surface coating operation (B-1 and SR-1) is in operation, in order to comply with this limit.

- (2) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the welding operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour} \\ P = \text{process weight rate in tons per hour}$$

- (d) 326 IAC 6-2 (PM Emissions Limit for Indirect Heating Facilities)  
The various natural gas-fired heaters and make up units are not subject to 326 IAC 6-2, as they are not sources of indirect heating.
- (e) 326 IAC 8-3 (Organic Solvent Degreasing Operations)  
The two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2) are "cold cleaner degreaser", since they are using solvent (3642S Laquer Thinner) at ambient temperature which is below the boiling point of the solvent.
- (1) Sections 2 through 4 of this rule applies to new facilities after January 1, 1980, performing organic solvent degreasing operations located anywhere in the state.
- (a) 326 IAC 8-3-2 Cold cleaner operation is applicable to the proposed two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2).  
Sec. 2. The owner or operator of a cold cleaning facility shall:
- (4) equip the cleaner with a cover;
  - (2) equip the cleaner with a facility for draining cleaned parts;
  - (3) close the degreaser cover whenever parts are not being handled in the cleaner;
  - (4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
  - (5) provide a permanent, conspicuous label summarizing the operating requirements;
  - (6) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (b) 326 IAC 8-3-3 Open Top Vapor Degreaser  
This rule is **not** applicable to the proposed two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2), as they are not open top vapor degreaser. Open Top Vapor Degreaser means a tank containing organic solvent which is heated to its boiling point for the purpose of cleaning or degreasing articles by passing the articles through or over the solvent bath.

- (c) 326 IAC 8-3-4 Conveyorized Degreasing Operation  
GUNWASH-1 and GUNWASH-2 are **not** subject to this rule, as they are not conveyorized degreasers. "Conveyorized degreaser" means any continuous system that for the purpose of cleaning or degreasing articles, transport the articles through or over an organic solvent bath which is heated to its boiling point, or transport the articles through an organic solvent bath at a temperature below the boiling point of the solvent.
- (2) Section 5 through 7 of 326 IAC 8-3 applies to new facilities constructed after July 1, 1990: Cold cleaner degreasers without remote solvent reservoirs; Open top vapor degreasers with an air to solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater; and Conveyorized degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater.
  - (a) 326 IAC 8-3-5 (Organic Solvent Degreasing Operations: Cold Cleaner Degreaser Operation and Control). This rule is applicable to cold cleaner degreaser without remote solvent reservoir, and is applicable to the proposed two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2). Pursuant to 326 IAC 8-3-5;
    - (1) the owner or operator of the two (2) gun wash tanks (GUNWASH-1 and GUNWASH-2) shall ensure that the following control equipment requirements are met:
      - (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
        - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
        - (B) the solvent is agitated; or
        - (C) the solvent is heated.
      - (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
      - (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (2).
      - (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
      - (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and

nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (2) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (a) Close the cover whenever articles are not being handled in the degreaser.
  - (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
- (b) 326 IAC 8-3-6 (Open Top Vapor Degreaser Operation and Control Requirements). This rule does not apply to the GUNWASH-1 and GUNWASH-2 tanks, as they are not open top degreasers. See complete explanation in 326 IAC 8-3-3.
- (c) 326 IAC 8-3-7 (Conveyorized Degreaser Operation and Control) GUNWASH-1 and GUNWASH-2 are **not** subject to this rule, as they are not conveyorized degreasers. "Conveyorized degreaser" means any continuous system that for the purpose of cleaning or degreasing articles, transport the articles through or over an organic solvent bath which is heated to its boiling point, or transport the articles through an organic solvent bath at a temperature below the boiling point of the solvent.

## Conclusion

The construction and operation of this truck sleepers manufacturing plant shall be subject to the conditions of the attached **Exemption 087-15628-00053**.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

Page 1 of 3 TSD App A

**Company Name:** Indiana Custom Truck, Inc.  
**Address City IN Zip:** 2840 N. State Rd. 9, Lagrange, IN 46761  
**Exemption No.:** 087-15628  
**Pit ID:** 087-00053  
**Reviewer:** Aida De Guzman  
**Date Application Received:** May 9, 2002

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

1.6

14.0

Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.01	0.05	0.00	0.70	0.04	0.59

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Page 2 of 3 TSD App A

**Company Name:** Indiana Custom Truck, Inc.  
**Address City IN Zip:** 2840 N. St. Rd 9, Lagrange, Indiana 46761  
**Exemption No.:** 087-15628  
**Pit ID:** 087-00053  
**Reviewer:** Aida De Guzman  
**Date Application Received:** May 9, 2002

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Substrate
<b>Paint Booth B-1</b>																	
White Paint	9.4	55.81%	0.0%	55.8%	0.0%	29.67%	1.14000	0.055	5.26	5.26	0.33	<b>7.91</b>	<b>1.44</b>	0.40	17.72	65%	wood/vinyl
Orange Paint	8.8	57.23%	0.0%	57.2%	0.0%	30.01%	1.14000	0.055	5.04	5.04	0.32	7.59	1.38	0.36	16.80	65%	wood/vinyl
36425 Lacquer Thinner	6.6	100.00%	0.0%	100.0%	0.0%	0.00%	1.42000	0.055	6.57	6.57	0.51	<b>12.31</b>	<b>2.25</b>	0.00	ERR	100%	cleanup
9345 Primer	12.2	27.90%	0.0%	27.9%	0.0%	51.65%	1.21000	0.055	3.39	3.39	0.23	5.42	0.99	<b>0.89</b>	6.57	65%	wood/vinyl
Metal Cleaner	9.3	41.80%	0.0%	41.8%	0.0%	15.74%	0.99000	0.055	3.90	3.90	0.21	<b>5.09</b>	<b>0.93</b>	0.00	24.75	100%	cleanup
<b>Glue Room</b>																	
Web 76 Adhesive	10.0	77.00%	0.0%	77.0%	0.0%	21.00%	2.09000	0.055	7.69	7.69	0.88	<b>21.22</b>	<b>3.87</b>	<b>0.40</b>	36.63	65%	wood
2001M	5.8	65.00%	0.0%	65.0%	0.0%	32.00%	0.60000	0.055	3.74	3.74	0.12	2.96	0.54	0.10	11.68	65%	wood/vinyl

**State Potential Emissions**

**Add worst case coating to all solvents**

Note: There are 3 glue guns and 2 paint guns used for the purpose of changing colors. Only 1 gun is used at a time .

**Uncontrolled PTE**

**Controlled PTE**

<b>46.50</b>	<b>8.50</b>	<b>1.29</b>
<b>46.50</b>	<b>8.50</b>	<b>0.13</b>

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations**  
**HAP Emission Calculations**

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**Company Name:** Indiana Custom Truck, Inc.  
**Address City IN Zip:** 2840 N. St. Rd. 9, LaGrange, IN 46761  
**Exemption No.:** 087-15628  
**Plt ID:** 087-00053  
**Permit Reviewer:** Aida De Guzman  
**Date Application Received:** May 9, 2002

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Ethylbenzene	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % MEK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MEK Emissions (ton/yr)
<b>Paint Area B-1</b>																	
White Paint	9.4	1.14000	0.055	5.00%	0.00%	1.00%	0.00%	0.00%	12.00%	3.00%	<b>0.13</b>	0.00	<b>0.03</b>	0.00	0.00	<b>0.31</b>	0.08
Orange Paint	8.8	1.14000	0.055	2.00%	0.00%	0.30%	0.00%	0.00%	0.00%	78.00%	0.05	0.00	0.01	0.00	0.00	0.00	<b>1.89</b>
36425 Lacquer Thinner	6.6	1.42000	0.055	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	<b>0.45</b>	0.00	0.00	0.00	0.00	0.00
9345 Primer	12.2	1.21000	0.055	0.00%	0.00%	0.30%	0.00%	0.00%	0.00%	11.00%	0.00	0.00	0.01	0.00	0.00	0.00	0.39
Metal Cleaner	9.3	0.99000	0.055	0.00%	0.00%	0.00%	0.00%	0.00%	14.00%	0.00%	0.00	0.00	0.00	0.00	0.00	<b>0.31</b>	0.00
<b>Glue Room</b>																	
Web 76 Adhesive	10.0	2.09000	0.055	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	<b>1.76</b>	0.00	0.00
2001M	5.8	0.60000	0.055	0.00%	15.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00	0.12	0.00	0.00	0.12	0.00	0.00

Total State Potential Emissions

	<b>0.13</b>	<b>0.57</b>	<b>0.03</b>	<b>0.00</b>	<b>1.76</b>	<b>0.62</b>	<b>1.89</b>
Worst Single HAP (MEK) PTE (tons/yr)	<b>1.89</b>						
Combined HAPs PTE (tons/yr)	<b>5.00</b>						

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs